ABSTRACT

Disclosed is a wavelength multi/demultiplexer for separating two wavelength bands with a narrow wavelength spacing. A dielectric multilayer filter is provided in an intersection portion where two optical waveguides intersect each other and separates incident light to the dielectric multilayer filter to transmitted light and reflected light. Here, the distance X from the multilayer surface on the light-incident side of the dielectric multilayer to the central intersection point of the two intersecting optical waveguides is arranged to satisfy $0 \leq X \leq d/2$ (where "d" represents the thickness of the dielectric multilayer). With this configuration, a multi/demultiplexer can be realized that shows good wavelength response without spectral degradation even for two wavelengths having narrow wavelength spacing.